

Nos. V and VI appeared north of the Dakotas and passed off to the eastward without entering the United States.

No. VII appeared in the Red River of the North Valley during the 19th, pursued a southeasterly course to northern Kansas, and thence nearly due east to the North Carolina coast. It was of slight intensity and unimportant in its relation to temperatures.*

Movements of centers of areas of high and low pressure.

Number.	First observed.			Last observed.			Path.		Average velocities.	
	Date.	Lat. N.	Long. W.	Date.	Lat. N.	Long. W.	Length.	Duration.	Daily.	Hourly.
High areas.										
I.....	1, a. m.	51	114	5, p. m.	33	80	<i>Miles.</i> 2,800	<i>Days.</i> 4.5	<i>Miles.</i> 622	<i>Miles.</i> 25.9
II.....	6, a. m.	48	89	7, p. m.	38	74	1,000	1.5	667	27.8
III.....	8, a. m.	51	104	11, a. m.	33	80	1,800	3.0	600	25.0
IV.....	14, a. m.	47	123	15, a. m.	43	109	800	1.0	800	33.3
V.....	15, a. m.	51	104	17, a. m.	45	67	1,750	2.0	875	36.5
VI.....	18, a. m.	50	100	19, a. m.	48	85	700	1.0	700	20.2
VII.....	19, p. m.	47	97	22, p. m.	35	76	1,750	3.0	583	24.3
Sums.....							10,600	16.0	4,847	202.0
Mean of 7 paths.....							1,514		692	28.9
Mean of 16 days.....									662	27.6
Low areas.										
I.....	1, a. m.	50	97	4, p. m.	49	64	2,000	3.5	571	23.8
II.....	1, p. m.	32	87	3, p. m.	43	70	1,300	2.0	650	27.1
III.....	5, a. m.	54	114	9, p. m.	46	60	3,775	4.5	839	35.0
IV.....	6, p. m.	53	106	8, a. m.	43	86	1,125	1.5	750	31.2
V.....	10, a. m.	48	117	11, a. m.	49	104	750	1.0	750	31.2
VI.....	11, p. m.	50	110	13, a. m.	50	100	875	1.5	583	24.3
VII.....	13, p. m.	51	104	15, p. m.	46	60	2,250	2.0	1,125	45.9
VIII.....	17, p. m.	32	106	21, a. m.	48	68	2,700	3.5	771	32.1
IX.....	22, a. m.	39	95	24, p. m.	35	76	1,250	2.5	500	20.8
Sums.....							16,025	22.0	6,539	272.4
Mean of 9 paths.....							1,781		727	30.3
Mean of 22 days.....									728	30.4

Lows.—No. I was first observed in the upper valley of the Red River of the North on the morning of the 1st. Its course was nearly due east to the St. Lawrence Valley, and, except a slight increase of temperature and showers in the lower Lake region, northern New York, and New England, it affected but slightly the weather conditions in the United States.

No. II apparently developed over southern Alabama on the 1st. It moved eastward to the Florida coast, and thence northward along the Atlantic coast, merging into No. I at or near Portland, Me., on the morning of the 3d. It was accompanied by thunderstorms and light rains in the east Gulf and South and Middle Atlantic States and high winds on the middle Atlantic coast.

No. III developed in the British Northwest Territory near the one hundred and fifteenth meridian during the night of the 4th, and, entering the United States through Montana, it moved southeastward, with remarkable rapidity, to southern Kansas, and thence slowly northeastward across the Great Lakes to the north Atlantic coast. Thunderstorms and rains, in many instances heavy, marked its course from Kansas to the New England coast.

Nos. IV and V were without any features of special interest, No. IV merging into No. III, and No. V disappearing in North Dakota within twenty-four hours after its development in western Washington.

No. VI was a marked depression, but of short duration, and very erratic movement. Its effects were confined to the far

northwest, where general rains fell over a large area of territory, embracing Montana and Washington.

No. VII originated in the British Northwest Territory and moved almost due east along the Canadian boundary line to Nova Scotia.

No. VIII developed in the upper Rio Grande Valley on the 17th, and moving northeastward with slowly decreasing pressure, reached the middle Atlantic coast on the 19th. Its course was thence north to the St. Lawrence Valley. Rains generally light and scattered accompanied this depression through the west Gulf States, central valleys, and Middle and New England States.

No. IX, which was probably of Gulf origin, appeared in southern Texas on the morning of the 22d, accompanied by heavy rain at Galveston and light rains throughout the eastern and central portions of Texas. It moved slowly northeastward and passed into the Atlantic off the North Carolina coast on the 24th. It caused general and heavy rains on the 23d in the east Gulf and South Atlantic States, and heavy rains along the south Atlantic coast on the 24th.—*Geo. E. Hunt, Chief Clerk, Forecast Division.*

RIVERS AND FLOODS.

The floods of April continued in the lower sections of the Brazos and Tombigbee rivers until about the middle of the month; in the Brazos River the crest of the flood reaching the Gulf on the 17th. Many farms were overflowed below Waco, Tex., and a few of them were abandoned for the season. The water passed somewhat more rapidly out of the Tombigbee, and no damage to crops or loss of stock was reported after the 1st of May. On the first day of the month the water in this stream at Demopolis, Ala., stood 55.6 feet on the gage, which was 20 feet above the danger line, and on the 31st a gage reading of only 4.4 feet was recorded, giving the remarkable monthly range of 51.2 feet.

Although there was a gradual fall in the Mississippi River, a fairly good navigable stage of water continued throughout the month, except in the extreme upper section.

On the upper Ohio River the larger steamboats were tied up on account of low water from the 12th to the 30th, but resumed their trips on the 31st. No interruption to navigation was reported below Cincinnati.

The mean water stages in the Missouri, Arkansas, and Red rivers were slightly higher than those of the preceding month.

A detailed report of the Brazos River Valley flood, and freshets in other streams of Texas has been made by Dr. I. M. Cline, official in charge of the Weather Bureau office at Galveston, Tex., and is printed in another portion of this REVIEW.

The highest and lowest water, mean stage, and monthly range at 132 river stations are given in Table XI. Hydrographs for typical points on seven principal rivers are shown on Chart V. The stations selected for charting are: Keokuk, St. Louis, Memphis, Vicksburg, and New Orleans, on the Mississippi; Cincinnati and Cairo, on the Ohio; Nashville, on the Cumberland; Johnsonville on the Tennessee; Kansas City, on the Missouri; Little Rock, on the Arkansas; and Shreveport, on the Red.—*Geo. E. Hunt, Chief Clerk, Forecast Division.*